

CLAIMS

What is claimed is:

1. A therapeutic apparatus for stimulating healing of a wound in mammals, comprising:

a porous pad which is permeable to fluids for introduction into the wound and secured in the wound by a dressing covering the wound and providing an air-tight seal around the wound and said pad;

a canister for collecting fluids sucked from the wound connected to said pad through a drainage tube; and

a suction pump for applying negative pressure to the wound connected to said canister through a hose, at least one filter being interposed between said canister and said pump.

2. An apparatus as claimed in claim 1 wherein the filter is located in said canister.

3. An apparatus as claimed in claim 2 wherein said canister is removably attached to a housing for said pump.

4. An apparatus as claimed in claim 3 wherein said canister is removably received in a recess in the housing.

5. An apparatus as claimed in claim 1 wherein the drainage tube is fitted into the interior of said porous pad as an interference fit.

6. An apparatus as claimed in claim 5 wherein said pad comprises a polymer foam having interconnecting cells.

7. An apparatus as claimed in claim 6 wherein said foam is a polyether reticulated foam having at least 95% of interconnecting cells.

8. An apparatus as claimed in claim 1 wherein the dressing is an elastomeric film which is coated at least in the peripheral areas with a pressure-sensitive adhesive and said foam is a reticulated foam having at least 90% of interconnecting cells.

1 9. A therapeutic apparatus for stimulating healing of a wound in
2 mammals, comprising:

3 a porous pad which is permeable to fluids for introduction into the
4 wound and secured in the wound by a dressing covering the
5 wound and providing an air-tight seal around the wound and said
6 pad;

7 a canister for collecting fluids sucked from the wound connected to said
8 pad through a drainage tube; and

9 a suction pump for applying negative pressure to the wound connected to
10 said canister through a hose, at least one filter being interposed
11 between said canister and said pump;

12 a sensor for detecting when said canister is substantially full with fluid,
13 said sensor being associated with said pump to discontinue
14 application of the negative pressure when a substantially full
15 condition of said canister is detected.

16 10. An apparatus as claimed in claim 9 wherein said sensor comprises
17 a capacitance sensor, said sensor arranged to sense a change of capacitance as
18 said canister fills with fluid.

19 11. An apparatus as claimed in claim 10 wherein the apparatus is
20 adapted to apply continuous or intermittent suction to the wound.

21 12. An apparatus as claimed in claim 11 further comprising a bleed
22 device provided between the canister and the pump to permit release of negative
23 pressure during intermittent operation.

24 13. A therapeutic apparatus for stimulating healing of a wound in
25 mammals, comprising:

26 a polyether reticulated foam pad which is permeable to fluids, said pad
27 having at least 95% of interconnecting cells being adaptable for
28 introduction into the wound;

1 a dressing for securing said pad in place by covering the wound and
2 providing an air-tight seal around the wound and said pad, said
3 dressing being an elastomeric polyurethane film which is coated at
4 least in the peripheral areas with a pressure-sensitive adhesive;
5 a drainage tube fitted into the interior of said porous pad as an
6 interference fit;
7 a canister for collecting fluids sucked from the wound; said canister being
8 connected to said pad through said drainage tube;
9 a suction pump for applying continuous or intermittent negative pressure
10 to the wound, said pump being connected to said canister through
11 a hose;
12 a bleed device provided between the canister and the pump to permit
13 release of negative pressure during intermittent operation;
14 said canister further being removably received in a recess of a housing for
15 said pump;
16 a filter contained in a portion of said canister in fluid communication
17 between said canister and said pump;
18 a capacitance sensor arranged to sense a change of capacitance as said
19 canister fills with fluid, said sensor being associated with said
20 pump to discontinue application of the negative pressure when a
21 substantially full condition of said canister is detected.

22 14. A canister for use in an apparatus for stimulating wound healing
23 by drainage, comprising:

24 a molded plastic container provided with an anti-foaming substance
25 within a chamber thereof;
26 said container having an inlet for connection to a wound dressing pad;
27 said container having an outlet for connection to a suction pump;
28 said outlet incorporating a bacterial filter; and

1 a deflector for diverting fluid sucked through said inlet in a direction
2 towards the bottom of said container.

3 15. A canister as claimed in claim 14 wherein said container is
4 provided with a gel-forming substance, which substance is capable of
5 immobilizing drainage fluids within said container.

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